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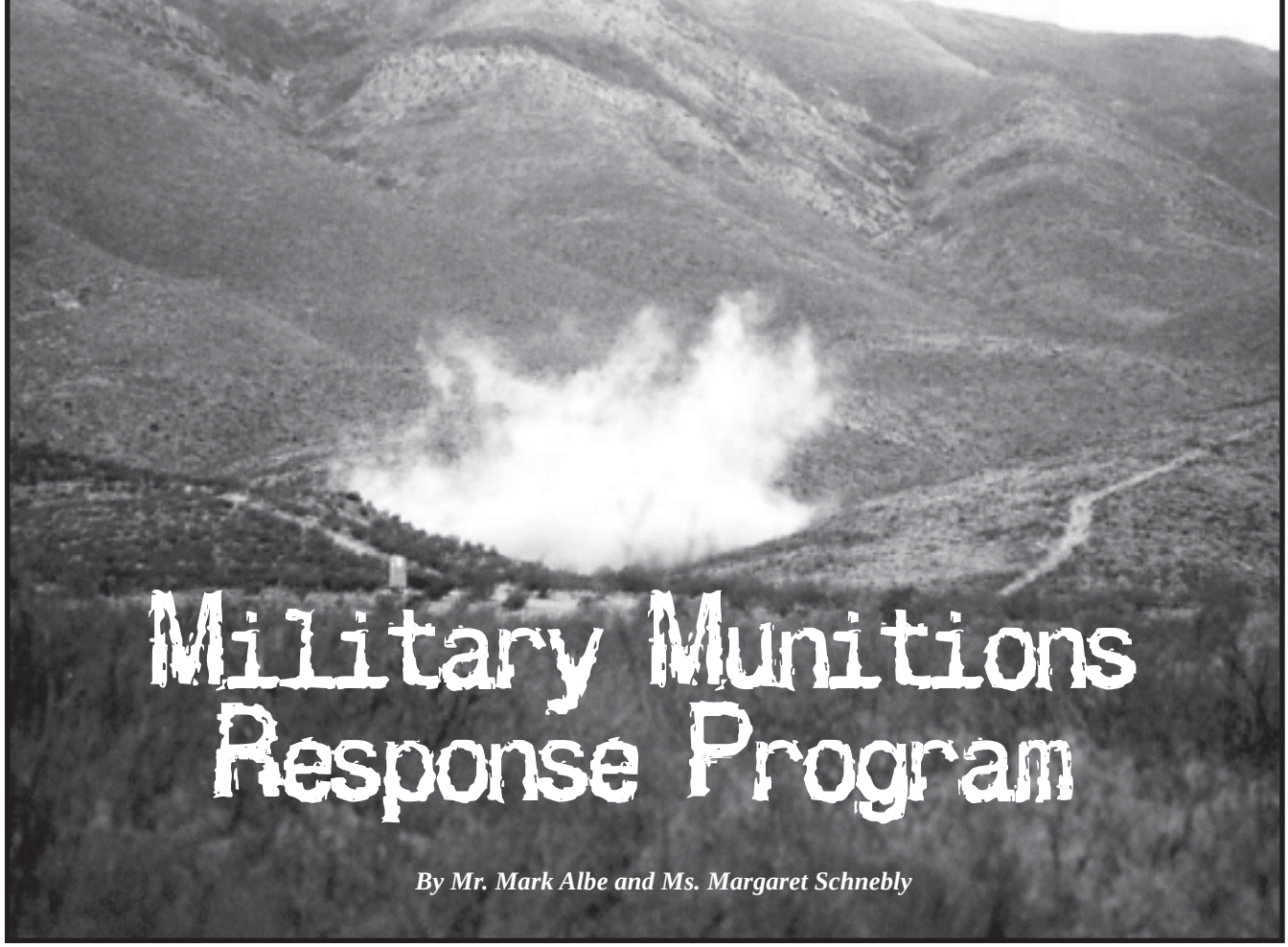

Military Munitions Response Program

By Mr. Mark Albe and Ms. Margaret Schnebly

Photo courtesy Fort Bliss, Texas

The Installation Restoration Program (IRP) has been the Army's primary cleanup program within the Defense Environmental Restoration Program (DERP) since the 1980s. Historically, IRP focused on cleaning up sites contaminated with hazardous substances that posed toxicological risks. This changed in 2001 with the establishment of a new Army cleanup program that targeted military munitions.

The Military Munitions Response Program (MMRP) was formalized in September 2001 when the Department of Defense (DOD) published new management guidance for DERP. A new program category under DERP, MMRP addresses environmental health and safety hazards associated with unexploded ordnance (UXO), discarded military munitions (DMM), and munitions constituents on current and former military sites as a complement to the highly successful IRP.

In December 2003, the Army fulfilled its first MMRP requirement—an inventory of its former training ranges and munitions sites to identify sites eligible for MMRP. In fulfilling its obligations under MMRP, the Army's first priority is the protection of human health, safety, and the environment. The Army went beyond the letter of the requirement and expanded its data gathering efforts to account for additional pertinent information. As a result, the Army not only expedited the program's decision-making process—with human health and safety the top priority—but also put itself ahead of schedule and established a precedent for MMRP success.

Legislative Background

This MMRP inventory effort, part of a larger mission to ensure public health and environmental safety, has been underway since fiscal year (FY) 2002, when Congress passed the National Defense Authorization Act. This piece of legislation set MMRP in motion by requiring the military services to complete the following:

- Develop an initial inventory of all current and former military sites within the United States, its territories, and its possessions containing or suspected of containing UXO, DMM, or munitions constituents. This helped determine the size and scope of the program. Criteria are outlined in the DERP management guide.
- Ensure that specific inventory site information is entered into the appropriate DOD environmental database. For the Army, this is the Army Environmental Database–Restoration. This site information would also be used to determine initial cost-to-complete estimates and total environmental liabilities associated with MMRP.
- Develop a response prioritization protocol for each MMRP site.

The military services were directed to include not only former ranges but also all sites possibly containing UXO, DMM, or munitions constituents in the MMRP site inventory. With this clarification, the Army began moving forward with

plans to expand its current environmental cleanup program to address MMRP requirements.

Roles and Responsibilities

The Army assigned the US Army Environmental Center (USAEC) the primary responsibility for completing the inventory for all active, base realignment and closure (BRAC), excess property, Formerly Used Defense Sites (FUDS), and state-owned and -operated National Guard Bureau installations, as required by the 2002 National Defense Act. Given the vastness of the task, USAEC took a team approach, bringing together organizations with the necessary technical and project management experience. USAEC enlisted the US Army Corps of Engineers as the executing manager for the inventory project.

The Corps's experience in managing UXO projects—through the FUDS program and its Ordnance and Explosives Center of Expertise in Huntsville, Alabama—would be crucial for success. USAEC and the Corps agreed that the MMRP team should include contractor support teams, if the 2003 due date was to be met. The two organizations divided the country into three regions and selected a contractor to do the inventory in each. The work was delegated to three Corps geographic districts: the Eastern-Baltimore District, Midwest-Omaha District, and West-Sacramento District.

These teams would visit all active installations in their respective regions and perform the research required to collect the inventory data, supporting geographical information system data, and maps. A separate contractor did the work on all Army BRAC installations.

Inventory Execution and Results

In October 2001, the inventory began. This included hundreds of installation visits; intensive historical research; numerous document, installation, and site mapping reviews; and periodic team coordination and problem solving meetings. Additionally, each site was assessed for explosives safety risk using the Risk Assessment Code Methodology developed by the Huntsville Center. In total, the teams investigated more than 620 Active Army, BRAC, and state-owned and -operated National Guard installations and facilities. At these three types of installations, 1,318 sites known or suspected to contain UXO, DMM, and munitions constituents were found. In the FUDS category, 1,172 properties and 2,446 sites were identified. USAEC evaluated all active and BRAC sites for MMRP eligibility. USAEC determined that 818 sites representing 2.91 million acres were eligible for the active MMRP, and 98 sites representing more than 200,000 acres were eligible for the BRAC MMRP.

The data was uploaded in the Army Environmental Database–Restoration and preliminary restoration cost estimates were developed using the DOD-approved Remedial Action Cost Engineering and Requirements System. Each site's risk assessment code score will be used to prioritize site response. (A new Munitions Response Site Prioritization Protocol will replace the risk assessment code methodology. Approval is expected in January 2005.) The complete list of MMRP sites will be included in the FY 2004 DERP Annual Report to Congress.

Next Steps

The IRP and MMRP have become the cornerstones of the Army environmental cleanup strategy, the Army's basic roadmap to addressing the DOD cleanup objectives. The strategy is designed to accomplish two things:

- Empower Army environmental managers to proactively address environmental contamination caused by formerly accepted Army practices.
- Ensure that timely, cost-effective, and successful business and scientific solutions—such as performance-based contracting—are implemented to protect human health and environmental safety.

Moving forward, the majority of the MMRP remediation work will be completed under the Comprehensive Environmental Response, Compensation, and Liability Act process. However, the Army is expecting that some installation work may be required to follow the Resource Conservation and Recovery Act process. With this in mind, DOD developed the following performance goals for MMRP at active installations:

- Complete a preliminary assessment for each MMRP-eligible site by the end of FY 2007.
- Complete a site inspection for each MMRP-eligible site by the end of FY 2010.

Photo courtesy USAEC

Unexploded ordnance from the formerly used defense site of Raritan Arsenal, New Jersey, 1997

The final inventory report completed for each active installation was comprehensive enough to meet the requirements of a preliminary assessment. And during the range inventory, enough data was collected to meet the requirements, so the first MMRP goal of completing preliminary assessments by the end of FY 2007 has been met. In the long run, going above and beyond from the get-go is helping the Army quickly identify and address any public safety risks.

As a result, USAEC initiated the site inventory effort in FY 2003. It reassembled its inventory teams to tackle the site inventories, ensuring that the synergy, technical expertise, and intimate knowledge generated by these organizations during the inventory phase carried over into the process. USAEC kicked off the site inventory process at 10 active installations in FY 2003 and at 18 additional active installations in FY 2004.

The MMRP site inventory at an active installation will take approximately 18 months from the kickoff meeting to the delivery of the final MMRP site inventory report. The primary objective of the MMRP site inventory is to determine whether or not a remedial investigation or feasibility study is required at a site, whether or not an immediate response is needed at a site, or if the site qualifies for no further action.

The Army's MMRP site inventory process emphasizes continuous improvement, information sharing, communication, problem solving, and lessons learned. The team has built flexibility into the site inventory process and schedule. It is committed to developing the appropriate tools to ensure that the process runs smoothly and to completing each project in the best interests of all stakeholders involved. As the responsible party, the Army wants the public to be confident of its intent and commitment to work with local communities and current landowners to design, implement, and complete appropriate munitions responses at all munitions response sites. The Army is committed to ensuring the safety of the public, to keeping the public well-informed of program activities, and to addressing community concerns.

The MMRP site inventory process and methodology involves the following principles and activities:

- *Stakeholder Involvement.* Early stakeholder involvement is key to developing the trust necessary for ensuring that the work performed during the MMRP site inventory process meets expectations and requirements.
- *Historical Records Review.* This records search documents known information for the sites involved in the MMRP site inventory effort. It also involves development of a conceptual site model.
- *Technical Project Planning.* This proven method identifies project objectives and design data collection programs for hazardous, toxic, and radioactive sites. The four-phase process ensures that the type and quality of data obtained during the project satisfies project objectives and leads to informed decisions and site closeout.
- *Site Inspection.* Developing the MMRP field work plan includes soil sampling for explosives and metals to address potential munitions constituents and appropriate geophysical work for the detection of UXO and DMM.
- *Final Site Inventory Report.* This report formally documents the results of the site inventory and includes recommended steps for the site.

These activities will help the MMRP site inventory team collect the necessary information to complete the Munitions Response Site Prioritization Protocol and to develop better and more accurate cost-to-complete estimates for each site. The team developed a program management plan and a scope of work for each MMRP site inventory installation and chose the Corps's technical project planning process as its guideline.

In FY 2005, the MMRP site inventory team also plans to incorporate performance-based contracting into its process. USAEC is now securing funding for and scheduling MMRP site inventories for the remaining 130 active installations. The process should be completed by the end of FY 2010.

As of the end of FY 2004, DOD had not set dates for the completion of remediation at all MMRP sites. Looking ahead, the Army will continue to ensure that the best and most appropriate technologies are used during munitions response actions at the munitions response sites. Regardless, USAEC is planning to fund MMRP remedial investigation and feasibility studies projects based on stakeholder input and draft site prioritization protocol data. This step could begin as early as FY 2007 or 2008 on selected active installations with completed MMRP site inventories.

For more information on MMRP or the Army's environmental programs, contact the USAEC Public Affairs Office at (410) 436-2556 or visit <*http://aec.army.mil/usaec/*>.

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